DRI-EAZ

# Owner's Manual

## LGR1800 Portable Dehumidifier 230 volt with remote monitoring capability (F432i)

**The Dri-Eaz® LGR1800 dehumidifier reduces humidity in enclosed structural environments by removing water vapour from the air. The LGR1800 is engineered for improved operating performance within lower humidity environments. With a rugged, durable and highly portable design, the LGR1800 is ideally suited for water damage restoration, structural drying, construction, and other applications requiring temporary, high-performance dehumidification. With built-in humidistat control, the LGR1800 is ideal for environments that require longer term humidity control, museums, server rooms, etc.**

READ AND SAVE THESE INSTRUCTIONS

## SAFETY INSTRUCTIONS

**⚠WARNING**

**WARNING! Electric shock hazard, rotating fan, hot surface hazards. Unplug unit before opening cover for cleaning or servicing. Unit must be earthed.**

- Inspect the power cord before use. If cord is damaged, do not use. Always grasp the plug (not the cord) to unplug.
- The unit must be operated on a 230V/50Hz circuit protected by a Residual Current Device (RCD).
- Keep motor and wiring dry.
- Do not operate in standing water
- Do not operate in rain or snow. If electrical components become wet, allow them to dry before using.
- Do not attempt to repair the unit. For service, call Dri–Eaz at +44 (0)1908-611-211

## BEFORE YOU BEGIN

### Unpacking your unit

Retain all packing material and boxes for possible equipment returns.

### Warranty registration

Complete and post the enclosed card to register your purchase. Registration allows us to better assist you with using, maintaining and servicing your equipment, and provides us with your contact information in case we need to communicate important safety information concerning your Dri-Eaz product. If you determine service is required, have your equipment model, serial number and original proof of purchase available and call Dri-Eaz on +44 (0)1908-611-211 for assistance.

## INTRODUCTION

Dehumidifiers reduce humidity in enclosed structural environments by removing water vapour from the air. With proper use, the LGR1800 can help dry carpet, carpet pad, floors, walls, building contents and more. Using dehumidifiers can also help prevent secondary damage caused by high humidity. For best results, use the LGR1800 with Dri-Eaz TurboDryer airmovers placed around the perimeter of the room. Airmovers help to distribute heat energy, which accelerate the release of moisture from wet surfaces into the air.

### How the LGR1800 dehumidifier works

Dri-Eaz refrigerant dehumidifiers operate by pulling moist air in across a very cold evaporator coil. The moisture in the air condenses on the coil and drips into a catch basin. The water collects in a tray and is pumped out through a hose. In certain conditions, the machine operates in defrost mode, warming any frost accumulated on the evaporator coil back into water. LGR (Low Grain Refrigerant) dehumidifiers have better heat exchange and defrost abilities than regular refrigerant dehumidifiers, and are able to continue removing moisture in drier environments.

### Remote Monitoring Option

Your Dri-Eaz distributor can modify the LGR1800 to work with the HygroTrac Remote Monitoring System (purchased separately). HygroTrac lets you view drying environment conditions and equipment performance from any Web browser. Contact Dri-Eaz on +44 (0)1908-611-211 for more information about this option.

## POSITIONING A DEHUMIDIFIER

For best results, operate your dehumidifiers in an enclosed area, as this creates a drying chamber. Close all doors and windows that open to the outside to maximise the unit's water removal efficiency. Also, keep traffic though the drying chamber to a minimum. Place your LGR1800 dehumidifier against a wall, away from obstructions, and keep it away from anything that could block airflow into and out of the unit.

IMPORTANT: Before moving the unit, make sure there's no water in the pump. See how to use the PURGE function under "How to Use the Control Panel" on page 3.

### Managing temperature rise

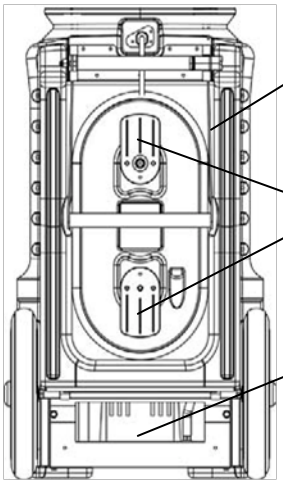
Controling temperature in the drying environment is critical. The most accurate way to monitor temperature is with a thermo-hygrometer; however, you can use an indoor/outdoor thermometer to gauge temperature. For improved accuracy, take temperature readings in in the center of the room, away from the airflow of the dehumidifier.

Dri-Eaz dehumidifiers warm the air as they remove moisture. Optimal drying temperatures range from 20–29°C (68–85°F). This may require the use of the building's HVAC (heating and air conditioning) system. If heating and cooling is not available at the site, contact Dri-Eaz and a Technical Specialist will help you find an appropriate solution.

For more information about creating an optimum drying environment, contact Dri-Eaz on +44 (0)1908-611-211.

## PARTS IDENTIFICATION

### FIG. A: BACK

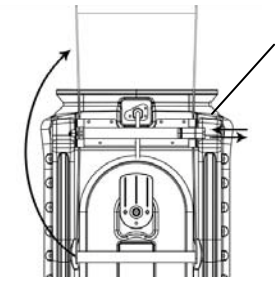


Handle (in stored position).

Hose storage tabs. Rotate upper tab to release hose.

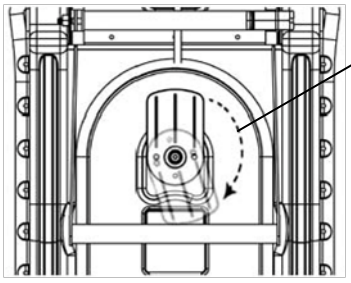
Location of pump and catch basin.

### FIG. B: SECURING HANDLE



1. Rotate locking lever to right to release handle.
2. Raise handle to upright position and secure in place with locking lever.
3. Reverse procedure to secure handle for shipping and storage.

### FIG. C: HOSE STORAGE



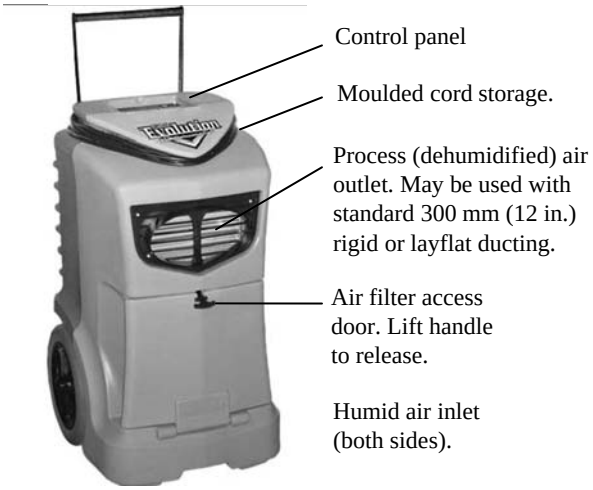
Rotate hose storage tab 180 degrees to the right to release drain hose.

## OPERATING YOUR DEHUMIDIFIER

### Set unit upright

Always operate the dehumidifier in an upright position. If the unit has been stored or transported in a horizontal position, set it upright (in a vertical position) for at least 30 minutes before operating it. This will allow for any compressor oil that has flowed into the refrigerant coils to return to the compressor and allow the dehumidifier to function properly.

**FIG. D: FRONT**


Control panel
Moulded cord storage.
Process (dehumidified) air outlet. May be used with standard 300 mm (12 in.) rigid or layflat ducting.
Air filter access door. Lift handle to release.
Humid air inlet (both sides).

### Set up drain hose

The LGR1800 pump connects to a plastic drainage hose. The hose can be stored on the hose wrap, located on the back of the unit (see Fig. A). You can release the hose by rotating the top reel of the hose wrap down; simply pull outward until you're able to rotate it (see Fig. C). Rotate the tab to the right or left until it is pointing straight down. This feature makes it easy to take off the entire hose quickly. Place the unattached hose end in a sink, drain, bucket –even outside; anywhere that water can drain out safely.

> **NOTE:** Uncoil and straighten the entire drain hose. Do not leave any of part of the hose coiled on the unit and do not place the end of the hose higher than 4.5 m (15 ft.) above the top of the unit. Also check for kinks, or obstructions that would restrict the flow of water. Failure to do so may cause a water backup in the pump resulting in leakage.

### Plug in electrical cord

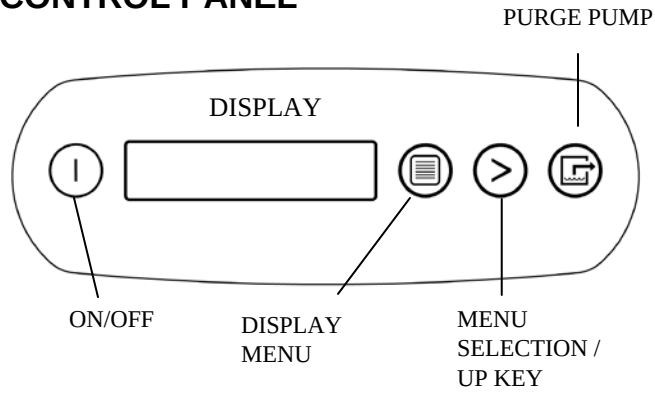
The electrical cord is wrapped around the top of the unit. The LGR1800 will operate on any standard 230-volt Residual Current Device (RCD) protected outlet.

If the unit experiences a loss of power, either from a power interruption or from thermal overload protection, let the unit rest for five minutes before restarting. Otherwise it might shut off again.

### Turn the unit on

The control panel on the LGR1800 has a display and a touchpad with four keys. Press the ⏻ ON/OFF to turn the unit on.

## CONTROL PANEL




### How to use the control panel

The control panel on the LGR1800 has a display and a touchpad with four keys.

⏻ **ON/OFF**. Press the ON/OFF key to turn the unit on or off. When the machine turns on, the display normally reads PLEASE WAIT COMP. DELAY and performs a numeral count down from a maximum of 60 seconds to 0. This delay allows time for refrigerant pressures to equalise for easier starting. If you don't see a compressor delay countdown, a delay is not necessary and the machine will begin operation immediately. Once the unit completes the compressor delay, the display shows UNIT ON XX HRS and cycles between INLET TEMP XX°C and INLET RH XX%.

**DISPLAY MENU**. Press the DISPLAY MENU key to cycle through the display of additional dehumidifier conditions and User Settings. To return to the main menu, press the ON/OFF button once.

> **MENU SELECTION**. Press the MENU SELECTION key to change the values on the "User Defined" settings. The MENU SELECTON key acts as the UP key for adjusting the setpoint for Humidistat mode operation. See User Settings Menu (below) for details.

**PURGE**. Press the PURGE key to manually empty water from the condensate pump reservoir. NOTICE: Always press the purge key prior to moving the unit. During normal operation, the pump purges automatically every six minutes, or whenever the reservoir is full. The

display will read PUMP PURGING with a numeral countdown.

## Main menu display

When unit is first plugged in to AC power, the control panel display will briefly cycle through a series of displays. This is part of the unit's self-diagnosis procedure and no user intervention is required.

Once the self-diagnosis is complete, the display will show the following information:

**UNIT ON 00 HRS**
**INLET 00°C / INLET 00%**

The first line of the display shows the total number of hours the unit has been in operation. This value may be reset to zero to track job hours (see "Job Hours Reset" below). The second line of the display alternates between inlet temperature and inlet humidity.

When fitted, the optional LGR1800i wireless transmitter continuously seeks a connection with a HygroTrac gateway. When a connection is established, a wireless symbol appears in the lower right corner of the display.

No information is presented on the display when the unit is not plugged in.

## User settings menu

A number of settings may be changed by the user. System information is also available. These items are accessed by pressing the DISPLAY MENU key. Each press of the key will display the next parameter (see list below). When you reach the parameter you wish to adjust, press the MENU SELECTON key to increase the value. Press DISPLAY MENU again to accept the setting and re-start the display cycle. If no keys are selected for 20 seconds the display will automatically reset and return to the normal display mode.

Note that only menu items followed by a greater-than symbol ( > ) may be adjusted.

**JOB HOURS**
**RESET? >**

Press to reset hours to zero. NOTE: When in Humidistat mode, the unit will display HUMIDISTAT on the top line during normal operation rather than JOB HOURS.

**LIFE HOURS**
**00 HRS**

Shows total unit operating hours. Value cannot be modified.

**INLET OUTLET**
**00° 00% 00° 00%**

Shows current temperature and RH of inlet and outlet. The HygroTrac system uses these values to calculate grain depression.

**HUMIDISTAT MODE**
**ON/OFF >**

In ON mode, unit will maintain the humidistat setpoint (see below). Press to toggle between ON and OFF. NOTE: When in Humidistat mode, the unit will display HUMIDISTAT on the top line during normal operation rather than JOB HOURS.

**HUMIDISTAT**
**SETPOINT 00% >**

Sets humidity level when unit is in Humidistat Mode (see above). Press to change RH value at 5% increments. Settings cycle upward through 90%RH and start again at 30%RH.

**TEMPERATURE UNIT**
**C° >**

Shows current temperature scale. Press to select Fahrenheit or Centigrade scale.

**LANGUAGE**
**ENGLISH >**

Shows current display panel language. Press to select Spanish, German, French or English.

**COIL TEMP**
**00°C**

Displays the cold (evaporator) coil temperature.

**SENSOR ID >**
**00000000**

When optional remote sensor fitted, shows built-in wireless transmitter number. The HygroTrac system uses this to uniquely identify your LGR1800 unit. NOTE: For convenience, this same number is shown on the barcode label affixed to the control panel.
Press to cycle through the following values: SENSOR TYPE, SENSOR REVISION, and SENSOR CONF REV. A Dri-Eaz service technician may ask you for these values when diagnosing a problem.

**COMPRSSR CURRENT**
**0.0 A**

Shows compressor current draw in amps.

**Error messages**

If the LGR1800 onboard diagnostics discover a problem, the unit will display an error message. If the unit is used with the HygroTrac system, it will also transmit most

error messages to the user's HygroTrac website. See "Error Messages," p. 6, for more information.

## MAINTENANCE

**WARNING! ELECTRIC SHOCK HAZARD.** Unplug the LGR1800 before performing any maintenance. Never use a water hose or pressure washer to clean coils, as water entering the electrical compartment could cause a shock hazard.

### Before each use

**Inspect the electrical cord for damage.** Look for fraying, cuts, etc. Do not use the unit if you find any damage. Call Dri-Eaz for service on +44 (0)1908-611-211.

**Inspect and vacuum filter as needed.** Keep a clean filter in the unit at all times to protect internal components from dust and other particulate build-up. The LGR1800 is equipped with a 3M™ High Air-Flow filter. The HAF filter may be vacuumed clean and reused up to three times. **Do not rinse or wash the HAF filter**, as it will reduce the effectiveness of the electrostatic material.

Replace only with a new 3M HAF Filter (Dri-Eaz part no. F372). For parts and service call Dri-Eaz Service Department on +44 (0)1908-611-211.

**CAUTION:** Dust can cause the unit to overheat and shut down. Do not operate when excessive dust or airbourne particles are present, such as during sanding or spray-painting. Inspect and clean air filter elements and coils frequently.

**IMPORTANT: Replace the HAF filter whenever 1) it has been vacuumed clean 3 times or 2) it has been used on a mould remediation job or otherwise exposed to potentially dangerous contaminants.**

### Monthly

**Check coils**. Dirty coils can cause the unit to overheat. Clean when visibly dirty. See Fig. E.

1. Unplug unit

2. Remove housing, locate coils and allow coils to dry if wet.

3. Vacuum coils surfaces until clean, being careful not to let the nozzle touch the fins, as that may cause damage by bending them.

**Check catch basin tray, and clean when dirt and debris are present.**

1. Wipe clean with a rag.

**Check drain hose.**

1. Look for obstructions. Disconnect and clear any debris present.

2. Reattach gravity drain hose.

**Inspect filter cover**

1. Remove the filter cover (this can be done without removing the housing).

2. Vacuum off any visible dirt, or wash with mild soap and water.

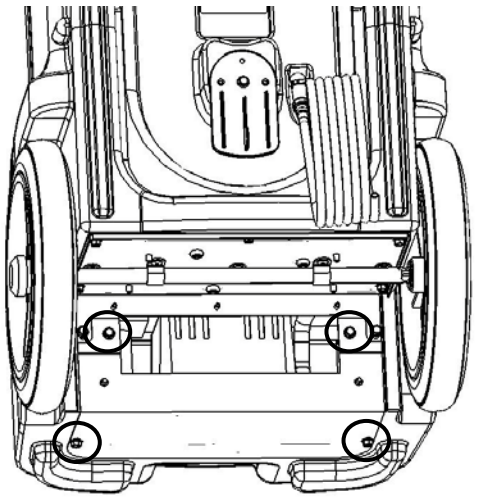
3. Let dry and put back in place.

### Annually

Have the pump system inspected by the Dri-Eaz Service Department on +44 (0)1908-611-211.

To access the LGR1800 pump, remove the four bolts located at the bottom of the unit (Fig. F). Use a ⅜-in. nut driver or socket.

**FIG. F: PUMP ACCESS PANEL**



To access the pump, remove the four bolts (circled) on the lower panel.

## TRANSPORT AND STORAGE

***NOTICE:*** Handle the unit carefully. Do not drop, throw, or place the unit where it could fall. Rough treatment can damage this equipment and may create a hazardous condition or void warranty.

**IMPORTANT:** Be sure to purge the water from the pump reservoir before moving the unit. See the PURGE function under "How to use the control panel" on page 3. Note that the unit must be plugged in for the Purge function to operate.

1. Do not expose the control panel to moisture, snow or rain when transporting in uncovered vehicles.
2. Store and transport securely to avoid any damaging impact to internal parts.

## ERROR MESSAGES

The table below shows error message that the system may detect. If the display shows an “ER” message, first unplug the unit and then plug it back in. This may re-set the electronics, and if so, no further action is required. If the error message reappears, try the solution under “Explanation.” If this still does not fix the problem, contact Dri-Eaz Service Department on +44 (0)1908-611-211.

| CONTROL PANEL MESSAGE | EXPLANATION |
|---|---|
| ER1 CONTACT SERVICE CENTER | Check AC power for inadequate voltage. The electronic control panel may require replacement. Contact service. |
| ER2 CONTACT SERVICE CENTER | The electronic control panel may require replacement. Contact service. |
| ER3 CONTACT SERVICE CENTER | Check defrost sensor for proper connection. Check sensor cable for damage. Sensor assembly may need replacement. Contact service. |
| ER4 √ DEFROST SENSOR CONNECT<br>– or –<br>ER4 √ OUTLET SENSOR CONNECT | Check defrost sensor for proper connection. Check sensor cable for damage. Sensor assembly may need replacement. Contact service. |
| ER5 √ SENSOR CONNECT ON BOARD | Check temp/RH sensor connections. |
| ER6 CONTACT SERVICE CENTER | The high voltage board may need replacing. Contact service. |
| ER7 INVALID MODEL SETTING | Incorrect DIP switch settings or firmware version for that specific model. Contact service. |
| ER8 BUTTON STUCK √ ALL BUTTONS | Press each membrane button and check for proper operation. Membrane overlay may require replacement. Contact service. |
| ER9 PUMP BLOCKED √ CHECK PUMP & HOSE | Check for obstructions in drain hose. Check the pump. |

## TROUBLESHOOTING

| FAULT | CAUSE | SOLUTION |
|---|---|---|
| Unit does not operate | No power to machine.<br>Unit not switched on. | Plug in unit; check power at outlet and at base of unit.<br>Switch unit on. |
| Compressor will not start | Unit needs 5 minutes before restart<br>Overload preventing start up | Switch off unit, wait 5 minutes before starting.Reduce room temperature below 32°C. |
| Blower wheel not turning | Obstructed blower. | Remove duct ring and grill.<br>Remove obstruction.<br>Replace duct ring and grill. |
| Unit operating, but room not dry | Not enough time to dry.<br>Poor air movement in room.<br>Excessive moist air infiltration. | Allow more time for drying.<br>Increase air movement with air movers.<br>Reduce infiltration. |
| Unit continuously in defrost mode | Room temperature too low | Increase room temperature. |
| Pump does not function | Stuck float valve | Clean float valve shaft. |
| Unit collects too little water | Room air is dry.<br>Room temperature is too low.<br>Airflow through unit is restricted | Check humidity with hygrometer.<br>Increase room temperature.<br>Check filter and coils; clean as necessary. |
| *If the problem you are experiencing is not listed here, call Dri-Eaz Service Department on +44 (0)1908-611-211.* | | |

### SPECIFICATIONS

| | |
|---|---|
| Model | LGR1800 F432 (i) |
| Type | Low grain refrigerant |
| Refrigerant | R-410A |
| Use weight | 42 kg |
| Dimensions (H × D × W) | 85 × 52,5 × 52,5 cm |
| Power | 2.8 amps, 230 volts |
| Water removal AHAM (80°F/60% RH) | 35 liters / day |
| Water removal max. (90°F/90% RH) | 63 liters / day |
| Max process air | 289 CMH* |
| Operating Range | 1–32°C |
| Air filter | 3M HAF filter (part no. F372) |
| Power cord | 7.6 m |
| Construction | Rotomolded polyethylene housing |
| Safety | CE |
| Specifications are subject to change without notice. Some values may be approximate. | |

### CONTACT


EUROPE
Dri-Eaz Products, Ltd.
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Interchange Park
Newport Pagnell MK16 9PS
United Kingdom
Phone: (0)1908-611-211
Fax: (0)1908-611-363
*www.dri-eaz.co.uk*

REST OF WORLD
Dri-Eaz Products, Inc.
15180 Josh Wilson Rd
Burlington, WA 98233
United States of America
Phone: 360-757-7776 Fax: 360-757-7950
*www.dri-eaz.com*


Warranty information is available at *www.dri-eaz.com*.
MICROBAN® is a registered trademark of Microban Products Company.

## PURCHASE

Purchase date: _____

Serial number: _____

Distributor: _____ Tel. _____

## MAINTENANCE

| DATE | SERVICE PERFORMED | PERFORMED BY |
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